

## ART 34 AMDT

CLAIMS

1. A sensor for detecting food spoilage products within food packaging or the opening or compromise of packaging, comprising a metal co-ordinated complex immobilised in or on a substrate, which complex is capable of releasing a detectable component by the preferential binding of a gaseous substance to the metal of said complex.

2. A sensor according to claim 1, wherein the gaseous substance is a sulphur- and/or nitrogen- and/or alcohol- and/or carbonyl- and/or phosphorus-containing compound.

3. A sensor according to claim 1 or 2, wherein the metal complex is a metal complexed with a chromophore or fluorophore.

4. A sensor according to claim 1, 2 or 3, wherein the metal complex is immobilised in a film or incorporated into or into part of a packaging material.

5. A sensor according to claim 4, wherein said film is applied to a label retained inside packaging or to the interior surface of a portion of a package.

6. A sensor according to any one of the preceding claims, wherein the metal complex is a palladium-fluorophore complex.

7. A sensor according to claim 6, wherein the complex is palladium-Fluorexon.

8. A sensor substantially as hereinbefore described.

9. A method of detecting the degradation of the contents of food packaging, or the opening or compromise of a package, comprising inserting into or applying to said package or incorporating into a portion of the interior surface of said package, a metal co-ordinated complex which is capable of releasing a detectable component by preferential binding of a gaseous substance to the metal atom(s) of said complex.

*claim 1 blue  
Calcain*

10. A method according to claim 9, wherein food spoilage is detected by the release of  
a fluorophore or a chromophore from a metal complex.

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